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ABSTRACT

Considering the national and provincial economic environments for the next decade, this paper projects financial resources and constraints likely to be faced by school boards in Ontario over the same period. The study utilizes an econometric model developed by the Institute for Policy Analysis of the University of Toronto. The findings indicate that the educational sector in Ontario should be planning for negative "real" growth in their receipts from the provincial government as a result of declining school enrollment and anticipated continued restraint in provincial government spending. (Author/WD)

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WORKING PAPER NO. 1

RESOURCES AND CONSTRAINTS: PUBLIC EDUCATION AND THE ECONOMIC ENVIRONMENT IN ONTARIO, 1978-1987

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MARCH, 1978

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RESOURCES AND CONSTRAINTS:
PUBLIC EDUCATION AND THE ECONOMIC ENVIRONMENT IN ONTARIO, 1978 - 1987

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This study reflects the views of the author and not necessarily those of the Commission or the Ministry of Education.

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SUMMARY

This paper develops a projection of the financial resources and constraints likely to be faced by school boards in Ontario over the next decade. The analysis is "macroeconomic" in nature; that is, the paper commences with an overview of the national and provincial economic environments for the next decade and then presents consistent projections for provincial governments and agencies, including school boards, in Ontario over the same period. The verification of the resulting projections for the educational sector based on a "microeconomic" analysis, namely an aggregation of projections for each individual school board is not attempted in this paper.

The findings of the paper suggest that, while Canadians and Ontarians will have to adjust to somewhat lower (but not negative) growth in their standard of living, the educational sector in Ontario should be planning for negative 'real' growth in their receipts from the provincial government. This reflects both declining school enrolments and anticipated continued restraint in provincial government spending. Competition from municipalities and local agencies for provincial funds and possible policy adjustments at the provincial level, which could result in further redefinitions of the "Edmonton Commitment," suggest that the outlook for school boards in the province over the next decade is unlikely to be encouraging.

1. INTRODUCTION

The economic environment provides the resources and constraints within which public policy is determined. This is true at all levels of government. The actual performance of the economy is determined by many interacting factors, such as the foreign demand for Canadian products, consumer and investor attitudes, and government policy. Some of these factors (such as foreign demand) are largely outside the control or influence of Canadians, while others (such as government policy) are very much determined within our national (and provincial) boundaries. It is the joint impact of the outside (or exogenous) effects and the interacting (or endogenous) effects that determines the economic performance actually achieved. This, in turn, generates expectations regarding possible future economic performance, but the uncertain nature of the future configuration of these effects makes such projection a difficult task. Nonetheless, "planning in an uncertain environment" is an essential feature of decision-making in almost all organizations and consequently it becomes essential to employ a methodology that evaluates and incorporates the uncertain future into current decisions and plans. This is particularly true of those organizations concerned with public education where both the realities of current economic performance and the expectations regarding future economic performance are important determinants, not only of the demand for the services provided, but also of the evolution of public policy pertaining to the educational expenditures and perhaps to the modes of financing those expenditures. This paper briefly outlines the methodology employed by the Institute for Policy Analysis for developing and assessing economic projections. A consistant national and provincial (Ontario) economic environment

for the next decade (1978-87) is then reviewed (Section 2) with particular attention on the provincial and local government sectors in Ontario (Section 3). The paper concludes (Section 4) with an assessment of the relevance of these economic projections to the development of public policy at each level of government including the educational sector. (The reader who is not especially interested in the brief discussion of methodology and terminology should proceed directly to Section 2.)

1.1 Methodology

The Institute for Policy Analysis of the University of Toronto has been engaged in developing economic outlooks for the Canadian economy for almost ten years. Making use of two large-scale econometric models, the Institute has released regular short-term (quarterly for 2 to 3 years) and medium-term (annual for 10 to 15 years) economic outlooks for Canada. More recently some members of its staff - D.K. Foot, J.E. Pesando, J.A. Sawyer and J.W.L. Winder - completed a study for the Ontario Economic Council entitled The Ontario Economy, 1977-1987. Aspects of this study have since been updated by J.A. Sawyer, D.P. Dungan and J.W.L. Winder[1] and these two studies form the basis for the projected economic environment outlined in this paper.[2]

An econometric model is a system of statistically estimated, interrelated mathematical equations which purports to describe the important "workings" of an economy. The statistical estimates of the parameters are based on past data and the ability

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[1] See The Ontario Economy, 1978-1987 (Toronto, Ontario Economic Council, 1978).

[2] Special thanks are due to D. Peter Dungan who assisted in the preparation of this paper.

of the model to "explain" past events is an important test of the validity of the parameter estimates and the postulated interrelationships. Factors that do not depend (or depend only very slightly) on the domestic economy are considered exogenous to the model - that is, they must be determined outside the model and fed into it. Results from the model are, therefore, conditional on these pre-assigned values. Examples of these factors are the development of foreign (mainly the U.S.) economies and the domestic population growth and structure. Important economic changes of a discretionary nature - usually certain government policy levers - are also made exogenous so that different results conditional on different policies can be obtained. Besides being able to be evaluated against well established statistical criteria, this methodological approach has three distinct advantages:

(i) it develops not only qualitative but also quantitative results,

(ii) it ensures consistency amongst the vast array of interacting effects, and

(iii) it can be used to assess the quantitative impact of a change in the exogenous environment.

It is also possible to use an econometric model advantageously to examine the uncertain future. By assigning a value for each of the exogenous factors (including the policy levers) for each future period, a consistent solution for every variable in the model (such as gross national product) can be obtained. Results generated by this methodology are usually referred to as conditional projections since they are conditional on the assumed set of exogenous factors. A change in any one (or more) of these assumptions will lead to a new conditional projection.

1.2 Forecasts and Conditional Projections

Conditional projections are not necessarily forecasts. A forecast is usually considered to be the conditional projection with the highest chance of being actually realized. This is usually achieved by constructing the model so that "advance information" about the future can be included in the values for the exogenous factors. Such information is sometimes referred to as leading indicator information. In the absence of such information, as is often the case with economy-wide projections, it is more accurate to refer to the results as conditional projections - or just simply projections - rather than forecasts. Note also that it is often useful to consider a projection that assumes no change in government policy. Such projections are often referred to as control or reference projections and are usually used as a basis on which to assess the impact of a proposed policy change. If a change in policy is considered likely, the reference projection is unlikely to be an accurate "forecast." In the absence of such information, however, a reference projection can indicate "danger spots" where future policy changes may be required.

The approach taken in this paper is to adopt "reasonable" assumptions for the exogenous factors and essentially assume a "continuation of current government policy." The resulting projection of the economic environment for the next decade, which is conditional on these assumptions, is discussed in Sections 2 and 3 below. The "danger spots" are then identified and their relevance discussed in the final Section 4.

1.3 The Short-, Medium- and Long-Term

Since considerable debate can often surround the use of this terminology, which inherently involves "grey" areas, it

might be useful to clarify the usage adopted in this paper. The short-term is defined to be the period of time covering the next 2 to 3 years. The medium-term is considered to be the period of time covering the next 5 to 15 years. The long-term is used to refer to periods of 20 years or more beyond the current date. Since this paper is oriented towards the economic environment of the next decade, it can be considered of medium-term orientation.

Economists, unlike futurists in some other disciplines (such as demographers and environmentalists), seldom venture into long-term analysis. Three reasons may be offered to justify this reluctance:

(i) most economic problems are currently considered to be short-term or medium-term in nature. (Indeed, it has only been with the advent of the energy crisis in the early 1970s that medium-term analysis has become "respectable"!)

(ii) Most econometric models include a considerable number of exogenous factors for which values must be assigned in the projection period. This task gets increasingly difficult and uncertain as the projection period is lengthened.

(iii) It is very difficult to anticipate future government policy (which is an extremely important determinant of the economic environment) at any time, and the task becomes increasingly difficult (even ridiculous) as the projection period becomes longer. (It should be noted that sometimes government policy is announced prior to its implementation, such as the phased removal of wage and price controls and the movement to world energy prices.)

In addition to, or perhaps because of, these reasons the economic environment is probably more volatile than, for example, the demographic or ecological environment. Ecological problems tend to display relatively stable behaviour over a considerable period of time, while demographers are blessed with the "law" (or

truism) that "every year people get one year older." However, even demographers face considerable uncertainty when venturing into long-term projections - witness the recent (1965-75) rapid decline in the Canadian fertility rate, or the uncertainties associated with future government policy on immigration.

The above comments underscore the difficulties associated with any projection exercise. Economic projections are no exception and since they probably involve even more uncertainties than, for example, demographic projections, futurist economists have tended to confine themselves to the short-, and, more recently, the medium-term in the development of their projections.

2. THE NATIONAL AND PROVINCIAL ECONOMIC ENVIRONMENT

This section presents a brief summary of the national economic environment within which the economic environment for the province of Ontario for the next decade has been developed. The provincial economic environment is then discussed. An outline of the implications for the provincial and local government sectors in the province is presented in the subsequent section.

2.1 Assumptions (or Prior Judgments)

As outlined above, it is necessary to adopt "reasonable" assumptions for a number of important factors which are outside the control of Canadians or for which a future government policy is required. For completeness this section presents a very brief outline of the most important of these assumptions. (It may be omitted without any loss in continuity.)

(i) The annual rate of growth of output (measured by real gross national product [GNP]) in the U.S. is projected to decline from over 4 percent in 1978 to under 3 percent by 1985-87. However, U.S. import growth is assumed to be relatively stronger. Inflation in the U.S. is assumed to be above 6 percent for the remainder

of the 1970s and decline to about 5 percent by the mid-1980s.

(ii) The current weakness in other world markets is assumed to turn around so that imports by these countries return to annual growth rates close to 7 percent.

These two assumptions, which are based on the work of economists in the countries involved, implicitly project a reversal in the perceived tendency towards international protectionism.

(iii) The energy scenario facing the Canadian economy assumes that the price will rise to world levels by the early 1980s which will result in an investment stream most easily described by a blend of the high- followed by the low-price energy scenarios described in An Energy Strategy for Canada (1976). This means somewhat more reliance on electric power and increased imports of petroleum after about 1983.

(iv) Wage and price controls will be phased out as planned and the current restraint on government expenditures will remain at least until the end of this decade. Thereafter the annual rate of increase (in real terms) will increase to slightly over 4 percent which is still below that of the economy as a whole.

(v) The annual rate of growth of the money supply (M2) will be gradually reduced from a 1977 figure of 15.5 percent to 11.5 percent in 1980 and then is held at that rate.

(vi) For the reference solution the exchange rate is held at $0.93 U.S. per Canadian dollar.

(vii) Gross immigration to Canada is assumed to average 150,000 persons a year throughout the next decade and the fertility rate will remain at its current level.

(viii) Finally, it is assumed that there will be a resolution of "the Quebec independence issues" such that there will be no disruptions in interprovincial trade or in interprovincial financial flows.

It must be emphasized that these are assumptions (or prior judgments) and that the economic environment outlined in the following sections is conditional on these judgments being closely

realized. (One of the advantages of the econometric methodology is that each, or all, of these assumptions can be changed and the effect evaluated - a brief discussion of such alternatives is suggested in Section 4 below.)

2.2 The National Economic Environment (Table 1)

An economic recession is often defined as two successive declines in quarterly real[3] gross national product. Under this criterion Canada experienced a recession in 1974-75 and again in mid-1976. Positive growth in the first and third quarters of 1977 prevented a continuation into the current year but considerable excess capacity still remains. However it is not necessary to have such indicators to know that the current economic climate is far from rosy! The recent devaluation of the Canadian dollar both against the U.S. dollar and against most other western currencies should stimulate domestic growth although, because import prices are now higher, there will also be an upward impact on the rate of inflation. In the short-term then, assuming some revival of business confidence in 1978, real GNP growth in excess of 4.5 percent in 1978 and 5 percent in 1979 may be possible. Although some improvement in the rate of inflation appears possible it seems unlikely that the rate will fall below 6 percent. The unemployment rate is likely to remain close to the current level since the growth in the labour force will approximately equal the number of jobs created. This short-term outlook could be described as one of moderate growth.

The national outlook for the 1980s depends critically on the pattern of energy investments and the resulting implications

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[3] Economists use the word "real" to refer to growth after subtracting the component attributable to inflation.

Table 1

THE NATIONAL ECONOMIC ENVIRONMENT, 1967 TO 1987

(Percent Average Annual Growth Rate)

	History		Projection	
	1967-72	1972-77[a]	1977-82	1982-87
Real Gross National Product	5.3	3.9	5.2	4.7
Real Personal Consumption	5.5	5.3	5.4	5.1
(Services Portion Thereof)	4.3	5.0	5.9	5.5
Real Government Expenditure	5.0	3.1	3.9	4.5
Real Business Investment	4.6	4.5	6.3	4.4
Real Exports	8.4	3.1	5.0	4.4
Real Imports	7.8	6.5	5.5	5.9
Inflation in GNP	4.1	10.4	6.3	6.8
Inflation in Personal Consumption	3.6	8.6	5.9	6.9
Population	1.4	1.4	1.3	1.3
Gross Immigration (thousand persons)	147	178	150	150
Labour Force	2.9	3.3	2.1	2.0
Employment	2.3	2.9	2.4	2.1
Unemployment Rate (%)	5.4	6.6	7.5	6.1
Business Wages	8.1	11.7	8.4	10.1
Real Personal Disposable Income per Person	4.3	4.2	3.3	3.4
Real Personal Disposable Income per Employed Person	3.0	2.8	2.2	2.5
Foreign Exchange Rate (C$/U.S.$)	0.962	0.992	0.930	0.930
Current Account Balance of Payments ($ billion)	0.13	-2.98	-5.99	-6.26
Gov't (all levels) Surplus or Deficit ($ billion)	0.69	-1.92	-3.12	-0.86

[a] Estimates used for 1977

Source: The Ontario Economy, 1978-1987 and the Institute for Policy Analysis.

for capital flows and net imports. As noted above, a blend of the high- and low-price energy scenarios is incorporated into this projection and this contributes to projected annual growth rates of Canadian output (GNP) in excess of 5 percent in the early part of the decade (1980-82). Continued "above-normal" energy investment in the subsequent two years maintains GNP growth above 4.5 percent (1983-84), but thereafter output growth is projected to decline to slightly above 4 percent. The associated annual rate of inflation is projected to be around 6 percent throughout the next decade. It is interesting to note - and is important from Ontario's viewpoint (see Section 2.3) - that this projection embodies a relatively strong demand for consumer services.

The slower rate of population growth (of 1.3 percent annually) contributes to a decline in labour force growth (to an annual average of 2 percent[4]) and this contributes to a decline in the "potential" output growth of the nation. Consequently, the "above potential" output growth projected for the early 1980s, leads to employment growth in excess of labour force growth with consequent improvement in the national unemployment rate. The projection shows a decline from current levels in excess of 8 percent to levels in the 6 percent range by the mid-1980s. Any further improvement, however, appears to be unlikely. Wage rates in most of the economy continue to grow in the 8 to 10 percent range reflecting inflation rates around 6 to 7 percent and productivity gains around 2 to 3 percent. When combined with the other components of personal disposable income (such as interest,

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[4]Note that labour force growth can be expected to remain above population growth because of the changing age structure of the population and a continuation of increasing labour force participation by women.

dividends and government transfers) the projection indicates continued but slower growth in real personal disposable income per person of about 3 percent per annum (1979-83) increasing to around 3.5 percent by the end of the decade (1987).

In summary, the medium-term national economic outlook for the 1980s points to "above-normal" energy related investments as being the main force in assisting the economy to recover from its current depressed state. However no "boom" such as followed the 1961 depression) is anticipated with the consequent implications that the unemployment rate responds slowly and the inflation rate does not return to double-digit figures. Canadians, it appears, will have to adjust to somewhat lower but not negative growth in their standard of living.

2.3 The Provincial Economic Environment (Table 2)

Since Ontario accounts for slightly over 40 percent of national economic activity, it can be expected that the provincial economic environment will follow the national economic pattern quite closely. The main reason for any difference can be traced to the different composition of Ontario industry compared to the national composition and, to a much smaller extent, to different policy adopted by the Government of Ontario.

The nation-wide recession has certainly been experienced in Ontario and the short-term outlook is very similar to the national short-term outlook, namely one of moderate growth. Gross provincial product in real terms is projected to increase approximately 5 percent in 1978 and 5.4 percent in 1979. No distinction is made in this projection between the regional and national rates of inflation. Consequently, inflation rates around 6 percent are also expected to be relevant for the Ontario economy.

Table 2

THE PROVINCIAL ECONOMIC ENVIRONMENT, 1967 TO 1987

(Percent Average Annual Growth Rate)

	History		Projection	
	1967-72	1972-77[a]	1977-82	1982-87
Real Gross Provincial Product[b]	6.1	3.6	5.4	4.4
Population	1.9	1.6	1.4	1.4
Gross Immigration (thousands)	78	94	75	75
Labour Force	3.6	3.5	2.2	2.0
Employment	3.2	3.0	2.4	2.1
Unemployment Rate (%)	4.2	5.5	6.5	5.3
Real Personal Disposable Income per Person	4.2	4.0	3.3	3.3
Real Personal Disposable Income per Employed Person	2.8	2.6	2.3	2.5
Government (Ontario) Surplus or Deficit ($billion)	-0.21	-1.25	-2.94	-8.35

[a] Estimates used where necessary

[b] Deflated by the GNP deflator

Source: The Ontario Economy 1978-1987 and the Institute for Policy Analysis

Over the projection period it is assumed that Ontario captures approximately 50 percent of the gross immigration to Canada and loses approximately 25,000 persons to regions outside the province, hence averaging a net gain of 50,000 persons annually to the provincial population from this source. This, together with the natural increase resulting from continued current low fertility rates applied to a compositionally changing population, results in annual population growth of approximately 1.5 percent in the short-term declining to about 1.3 percent by the mid-1980s. The resulting labour force growth, although above population growth due to positive net immigration and continued growth in female participation, is projected to decline dramatically from the average annual growth rates around 3 1/2 percent of the last decade to growth rates slightly above 2 percent for the next decade. In the short-term, employment growth is projected to be only slightly above labour force growth and consequently the unemployment rate stays near current levels (that is, above 6 1/2 percent) until 1980, after which it slowly declines to rates slightly above 5 percent. No further improvement is anticipated and the gap between the national and the Ontario unemployment rates, which has been consistently in Ontario's favour throughout the postwar period, is expected to narrow slightly.

At first glance the medium-term outlook for Ontario, which shows a slightly higher real growth compared to the national rate yet a narrowing in the unemployment rate gap, appears to present a paradox. The paradox is compounded when it is realized that an important characteristic of the projection is that expenditures on consumer services are projected to grow faster than the other consumer expenditure categories (durables, semi-durables

and non-durables)[5] and that Ontario contains a relatively lower proportion of these industries than the country as a whole. The growth of services in Ontario is projected to exceed the growth of manufacturing (by about three quarters of one percent annually) throughout the entire projection period. However, Ontario contains a relatively advantageous composition (from a projected growth viewpoint) of manufacturing and other "goods" producing industries (including construction and utilities). For example, Ontario has a relatively lower proportion of non-durable manufacturing industries (especially textiles and clothing and wood and furniture) and a relatively higher proportion of durable manufacturing industries (especially motor vehicles and parts and electrical products). Since the growth of consumer expenditure on semi-durables and non-durables, which the first group satisfies, is projected to be relatively weaker than the growth in consumer expenditure on durables and investment expenditure, which the second group satisfies, Ontario manufacturing benefits relative to Canadian manufacturing industry. Also Ontario has a considerably smaller share of resource industries (agriculture, fishing and trapping, forestry, mineral-fuel mines and wells, and other mines and quarries) in its total output than does the country as a whole and, since these industries are projected to have relatively low rates of growth, Ontario industrial growth gains relative to Canadian industrial growth. In summary, Ontario's lower than average proportion in the high-growth service industries is more than offset by its higher than average proportion in the high-growth manufacturing industries and its

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[5] By 1987 it is projected that consumer services will account for 21.8 percent of total final domestic expenditure, up from 20.3 percent in 1977. Service industries include transportation and storage, communication, wholesale and retail trade, finance, insurance and real estate.

lower than average proportion in the low-growth manufacturing and resource industries, so that Ontario maintains its position as a higher-than-average growth province throughout the medium-term projection.

Why, then, is the unemployment gap between the Canadian and Ontario unemployment rates not maintained or even increased? Why does Ontario apparently lose relative to the nation as a whole when it comes to employment creation.[6] This is the paradox referred to previously. The answer lies in labour force growth and, to a lesser extent, in productivity. Ontario's labour force is projected to grow at a slightly faster rate than the nation as a whole since Ontario is projected to continue to obtain approximately half of (a reduced number of) immigrants and because of the age-sex structure of the current Ontario population which is somewhat more conducive to future labour force growth. On the other hand, employment growth is expected to equal but not exceed the national rate of growth. This occurs even though output growth is slightly higher in Ontario because productivity in the aggregate has been, and is projected to continue, growing faster than the national average. This means that relatively fewer people are required to produce the same output, or that the same number of people produce relatively more output, compared to other provinces in the projection horizon or compared to Ontario today. Moreover the relatively rapid growth projected for the lower-productivity growth service industries means that, in the medium-term, the rate of growth in service employment in Ontario will be nearly double that of the "goods" industries,

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[6] Recall that the unemployment rate in Ontario is projected to improve, especially in the 1980s, and to remain below the Canadian rate. However, the national rate is projected to improve more than the provincial rate (compare Tables 1 and 2).

and that Ontario will apparently lose relative to the rest of Canada with respect to employment creation (but not absolutely of course). Ontario service employment is most strongly concentrated in the trade and finance industries and it is in these industries that employment increases are projected to be the greatest.

In summary, the medium-term provincial economic outlook for the 1980s closely follows the national outlook. Ontarians too will have to adjust to somewhat lower growth in their standard of living. In spite of a national trend towards increased consumer spending on services, which is unfavourable to the province, Ontario can maintain its relative output growth by looking to its durable manufacturing industries and its relative employment growth by looking to its trade and finance industries. Due to higher aggregate productivity gains and slightly faster labour force growth, however, the Ontario unemployment rate, although improving and remaining lower than the national rate, will probably not improve as much as the national rate.

3. PROVINCIAL AND LOCAL GOVERNMENT

This section outlines the implications of the projected economic environment for provincial and local government in Ontario. After a brief aside on methodology and assumptions, medium-term projections of provincial government revenues and expenditures are presented. The latter contain provincial transfers (including educational transfers) to local governments and agencies. These are identified and examined in some detail. The economic projections enable the resources and constraints at both levels of government in the province to be identified. A discussion of the policy implications is left to the concluding section of the paper.

3.1 Methodology and Assumptions

The various major revenue sources and expenditure programs of the Government of Ontario are projected using econometric techniques and the latest information available from the Government. This procedure explicitly recognizes the role of the current depressed state of the economy (see above) on provincial revenues and embodies the actual and the promised short-term restraint on provincial expenditures. It does not, however, incorporate the Provincial Treasurer's announced objective to balance the provincial budget by 1981. The feasibility of this objective is, indeed, called into question by these projections. It is assumed that, except for the announced changes in federal to provincial financing, there is no change in the current sources and institutional arrangements for collecting revenues and that, where relevant, provincial tax rates remain unchanged. On the expenditure side, the use of econometric relationships based on past trends implicitly incorporates the assumption that, after adjustment for the restraint program in the short-term, expenditure growth resumes with some time-lag along the historically observed trends.

It is difficult to see how the restraint program can be extended into the 1980s without some deterioration in provincial government services. This strategy, although unlikely based on past behaviour, is certainly possible. The projection outlined in this section, assumes that the economic environment determines the revenues and that the medium-term expenditures are roughly governed by the trends of the past two decades. This methodology then permits the identification of any "danger spots" which are then discussed in the final section of this paper.

3.2 Provincial Government Revenues (Table 3)

Revenues are usually expressed in current dollars; that is, they embody a rate of inflation. Consequently, when comparing revenues over different time periods it is important to keep the relevant rate of inflation in mind.[7] If the rate of inflation differs between two time periods, the easiest method for assessing the "real" growth in revenues is to simply subtract a measure of the rate of inflation from the current dollar growth rate.

The Government of Ontario is anticipating total revenue in fiscal year 1977-78 to amount to $12.312 billion, a decrease of $309 million on its budget estimate. The main reason for the weakening in-year performance has been the failure of the Ontario economy to revive as quickly from its depressed state as was anticipated (hoped?). The major shortfalls occur in personal income tax revenues, corporation income tax revenues, retail sales tax revenues and mining tax revenues. In addition delayed implementation of budget measures (tobacco tax, etc.) reduces revenues. Taxation revenue accounts for roughly 60 percent of total revenue.

Inflation in the government sector is projected to decline about 5 percentage points on average over the next decade compared with the past five years and consequently this figure should be subtracted from the "history" to ascertain the real impact on provincial government revenues over the period. The declining growth rates for personal income tax revenue, which has been a high growth category (due to provincial rate increases), reflects the joint effect of the indexation of the tax-rate and exemption-level structure for inflation and Ontario's tax credit program.

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[7] Unfortunately there is not a single rate of inflation. Inflation in the government sector is usually higher than the rate in the overall economy because of the higher proportion of wage payments in the government sector.

Table 3

PROVINCIAL GOVERNMENT REVENUES, 1972 to 1987

(Percent Average Annual Growth Rate)

Revenue Category (in current dollars)	History[a] 1972-77	Projection 1977-82	1982-87
Personal Income Tax	16.9	9.7	9.1
Corporation Income Tax	12.2	15.9	11.7
Retail Sales Tax	17.2	11.7	11.6
Motive Fuel Tax	4.8	5.1	5.0
Other Taxation	23.7	14.8	13.3
Total Taxation Revenue	15.5	11.5	10.6
OHIP Premiums	9.4	2.3	2.1
LCBO Profits	5.1	11.7	11.5
Vehicle Registration Fees	11.7	4.9	4.7
Other	20.0	11.6	11.3
Total Other Revenue	11.3	7.1	7.8
Payments from Federal Government	10.4	10.8	11.0
Interest on Investments	14.9	14.0	12.7
Total Budgetary Revenue	13.7	10.8	10.4
Total Non-Budgetary Revenue	21.5	15.8	13.8
Total Revenue	14.1	11.1	10.6
Inflation in GNP	10.4	6.3	6.8
Inflation in 'All Government'	12.4	7.4	8.1

[a] Historical growth rates must be interpreted with caution since they embody all the discretionary policy changes (in tax rates, bases, coverage, etc.). It is for this reason that growth rates over the period 1967-72 are not presented.

Source: The Ontario Economy, 1978-1987 and the Institute for Policy Analysis.

Corporation income tax revenue growth increases as a result of the revival of the economy at the turn of the decade, while the growth in retail sales tax revenues reflects the projected growth in retail sales (which also determine LCBO profits). The projected growth in motive fuel tax revenues and vehicle registration fees does not even match inflation over the projection period since they relate to the number of vehicles on the road and, since population growth is projected to slow, some decline in vehicle growth is anticipated. The growth in OHIP-premium revenues, which reflect provincial employment growth, is also below the rate of inflation. Overall, assuming no major change in government policy, total real revenue growth to the provincial government is projected to decline from a little under 4 percent average over the next 5 years to around 2 1/2 percent average over the subsequent 5 years.

3.3 Provincial Government Expenditures (Table 4)

Provincial government expenditures are also expressed in current dollars and therefore should be interpreted in the same way as revenues (see section 3.2). The Government of Ontario is projecting total expenditures for fiscal year 1977-78 to amount to $13.606 billion, a decrease of $92 million on its budget estimate. This reflects the continuing "restraint program" being implemented by the Provincial Treasurer. The major reductions have been in the programs of the Ministries of Health, Government Services and Transportation and Communications. An increase in expenditures was required for the recent provincial election.

Total expenditures (in current dollars) for the province are projected to grow in excess of 12 percent per annum average over the entire projection period. Although a reduction on recent past history, these growth rates still represent average

Table 4

PROVINCIAL GOVERNMENT EXPENDITURES, 1972 TO 1987

(Percent Average Annual Growth Rate)

Expenditure Category (in current dollars)	History[a] 1972-77	Projection 1977-82	1982-87
Health	22.6	13.1	14.0
Education	11.7	11.3	10.5
Treasury, etc.	14.9	12.4[b]	12.5[b]
Transportation & Communications	11.3	14.5	13.6
Community & Social Services	23.4	11.0	12.5
Public Debt Interest	11.9	12.8	13.8
Other	14.3	12.3	12.0
Total Expenditures	15.7	12.4	12.5
Inflation in GNP	10.4	6.3	6.8
Inflation in 'All Government'	12.4	7.4	8.1

[a] Historical growth rates should be interpreted with caution, even though every attempt has been made to ensure that the categories are consistently defined.

[b] Imposed at the average growth rate.

Source: The Ontario Economy, 1978-1987 and the Institute for Policy Analysis.

'real' growth of almost 5 percent per annum, with the real growth rate declining through the 1980's because of the slightly increasing rate of inflation as the economy grows near its "potential." Under current guidelines this represents some relaxation in the current restraint program (see Section 4 for further discussion).

The above-average growth categories are projected to be transportation and communications, health and public debt interest, while the below-average categories are projected to be education, community and social services (first half) and 'other'. It might be expected that these relative rankings would be unchanged even if different total expenditure growth paths were adopted by the Government of Ontario. The below-average growth of the education category is particularly noteworthy and will receive elaboration in the following sections of the paper.

3.4 Provincial Payments to Local Governments and Agencies Table 5)

Since 1973 provincial payments to local governments and agencies[8] have been governed by the "Edmonton Commitment." Essentially this Commitment has guaranteed that provincial transfers to local governments and agencies would grow at the same rate as provincial budgetary revenues. The base year was chosen to be fiscal 1973-74. According to the Provincial Treasurer, the province has transferred almost $13.7 billion out of budgetary revenues of $46.2 billion (or 29.6 percent) over the past five years. Other assistance which includes payments in lieu of taxes, tax compensation grants, employment incentive payments and

[8] Local agencies include homes for the aged, children's aid societies, health agencies, conservation authorities and library boards.

Table 5

PROVINCIAL TRANSFERS TO LOCAL GOVERNMENTS AND AGENCIES

UNDER THE "EDMONTON COMMITMENT," 1973 TO 1977[a]

($ billion)

Category (in current dollars)	Base Year 1973-74	1974-75	1975-76	1976-77	Estimated 1977-78	5 Year Total
Budgetary Revenue	6.844	8.176	9.010	10.514	11.635	46.179
Growth Rate (%)	13.2	19.5	10.2	16.7	10.7	(14.0)
Commitment Level	2.026	2.421	2.668	3.114	3.447	13.676
Actual Transfers	2.026	2.322	2.880	3.103	3.327	13.658
of which:						
Education	1.251	1.331	1.575	1.695	1.880	7.732
Growth Rate (%)	5.7	6.4	18.3	7.6	10.9	(9.7)
Transportation	0.267	0.330	0.437	0.443	0.502	1.979
Social Assistance	0.110	0.134	0.175	0.167	0.187	0.773
Other Conditional	0.035	0.044	0.103	0.100	0.111	0.393
Total Conditional	1.663	1.839	2.290	2.405	2.680	10.877
Total Unconditional[b]	0.202	0.297	0.345	0.439	0.367	1.650
Payments to Agencies[c]	0.161	0.186	0.245	0.259	0.280	1.131
Other Assistance[c]	0.229	0.346	0.310	0.431	0.404	1.720
of which:						
Teachers' Superannuation Fund	0.167	0.293	0.237	0.337	0.262	1.296
Total Transfers	2.255	2.668	3.190	3.539	3.731	15.378
Growth Rate (%)	18.1	18.3	19.6	10.9	5.4	(14.4)

( ) indicates average growth

[a] 1973 refers to fiscal year 1973-74; 1977 to fiscal 1977-78

[b] Includes general support, Northern Ontario grants, per capita grants and police grants

[c] See text for a summary of these payments.

Source: Ontario Budget, various issues.

payments into the Teachers' Superannuation Fund, has brought the level of total Ontario payments to local governments and agencies to $15.4 billion since 1973. The average annual growth of these transfers has been in excess of 14 percent, although the rate of increase has declined rapidly since the peak year of 1975-76.

These total provincial transfers to local governments and agencies over the past five years have been distributed as follows (from Table 5):

	Percent
Education	50.3
Transportation	12.9
Social Assistance	5.0
Other Conditional	2.6
Total Conditional	70.7
Total Unconditional	10.7
Payments to Agencies	7.4
Other Assistance	11.2
(of which Teachers' Superannuation Fund	8.4)
Total	100.0

Conditicnal payments have accounted for slightly over 70 percent of total transfers and by far the largest component of these are transfers to school boards which, by themselves, have accounted for over half of total transfers. The average annual growth of these payments has been roughly half that of "all other transfers" (9.7 percent compared to 20.7 percent - averaging 14.4 percent). The pattern of growth has been somewhat similar with the exception of the current year when the growth in educational transfers is expected to increase to 10.9 percent while the

growth in "all other transfers" is estimated to decrease to only 0.4 percent. Finally, it should be noted, that "other assistance" also includes an education related component, namely payments into the Teachers' Superannuation Fund. These payments have totalled $1.296 billion over the past five years (or 8.4 percent of total transfers over the period). The growth in these payments is dictated by the actuarial requirements of the fund which, in turn, are influenced by teacher salary awards. Not surprisingly, therefore, there was a large increase (of $100 million or over 42 percent) in these payments in 1976-77. The estimated payments into this fund for fiscal 1978-79 amount to $262 million.

The short-term outlook which underlies the commitments for fiscal year 1978-79 has been recently outlined by the Provincial Treasurer (in a speech to the Provincial-Municipal Liaison Committee on September 16, 1977). The speech contained proposed "amendments" to the Edmonton Commitment by, basically, broadening the base on which assistance is to be assessed. The major new inclusion (accounting for roughly 70 percent of the new items) is payments into the Teachers' Superannuation Fund. By including these new items under the Commitment, the Treasurer has been able to scale down provincial payments to local governments for 1978-79, from a projected $3.748 billion under the previous formula to $3.713 billion under the "broadened" formula, or a difference of $35 million. The new projection represents zero growth from the previous year under the "broadened" formula and an actual decrease in total transfers when compared to the previous formula. At the same time, the Provincial Treasurer announced a provincial commitment of a total of $4.332 billion (or an increase of 8 percent) in transfers for 1979-80 on the basis of achieving

balance under the "Broadened Edmonton Commitment."

These proposals contain the following implications for assistance to school boards and local governments and agencies in the province:

	-------$billion-------			Percent
	1977-78	1978-79	Increase	Increase
Assistance to School Boards				
General Legislative Grants	1.880	1.970	0.090	4.8
Teachers' Superannuation	0.262	0.331	0.069	26.3
Total	2.142	2.301	0.159	7.4
Assistance to Municipalities and Local Agencies	1.571	1.722	0.151	9.6
Total Transfers	3.713	4.023	0.310	8.3

Consequently, the short-term outlook for the education sector in the province is for 10.9 percent growth in legislative grants (or a 5.4 percent growth in total assistance to school boards including superannuation payments) in 1977-78 and a 4.8 percent growth in legislative grants (or a 7.4 percent growth in total assistance) in 1978-79. Given the inflation projections outlined in Section 2 above, these grant payments represent a real increase of approximately 3 to 4 percent in 1977-78 and a real decrease of approximately 2 to 3 percent in 1978-79.

The medium-term outlook is even less promising. As noted above (Table 4) education expenditures are projected to average in excess of 10 percent (a real increase of approximately 3 to 4 percent) over the next decade. However, this total includes post-secondary education expenditures, expenditures on special and cultural education, Ministry administration expenditures and contributions to superannuation funds, as well as grants to

school boards. The growth in the latter category, which reflects amongst other things the projected declining ratio of school-age children in the provincial population, is projected to grow only slightly until approximately 1981, after which a decline is projected (until 1986). More specifically the medium-term outlook for school board assistance (excluding superannuation payments) can be summarized as follows:

	Percent Average Annual Growth Rate	
	1977-82*	1982-87*
General Grants to School Boards	2.2	-0.1
Rate of Inflation in Government	7.4	8.1
'Real' Change (approx.)	-5.2	-8.2

*1977 refers to fiscal year 1977-78, etc.

Consequently, over the next decade these projections suggest that school boards in Ontario should be planning for negative '<u>real</u>' growth in their receipts from the provincial government.

4. POLICY ADJUSTMENTS

This final section of the paper is devoted to an assessment of the relevance of the projections of the economic environment to policy adjustments at each level of government. Such an assessment is, by its very nature, personal, subjective and speculative and the reader is encouraged to impart his or her own assessment to the economic projections presented above. The economic projections can highlight or draw attention to "danger spots," but the resolution of these in the form of appropriate public policies requires an accurate projection of the political process - a subject into which any economist would understandably fear to tread and much prefer to act as an "angel" and not a "fool"! The following observations are offered with this in mind!

4.1 Policy Adjustments at the National Level

Given the relatively weak short-term economic outlook and the lack of any "boom" conditions in the medium-term economic outlook which results in an unemployment rate that stays above 6 percent, it is likely that there will be pressure to formulate policies to reduce the level of unemployment, especially amongst the younger age groups. The challenge will be to arrive at policies which do not generate "boom" conditions and hence trigger another round of excessive inflation. Increased government expenditures seem to be an unlikely source of such stimulus not only because of the apparent prevailing "mood" of the country, but also because all levels of government are projected to remain in a (improving) deficit position throughout the projection. For this reason it is also unlikely that substantial tax cuts of any kind will be contemplated. Consequently, it is likely that policies that are aimed directly at labour markets - such as employment incentives, improved labour market mobility and information, or even encouragement towards more part-time jobs - will be employed in an attempt to reduce the unemployment rate. However, it should be noted that most economists no longer consider a 3 or even a 4 percent unemployment rate as a desirable objective since, under the current unemployment insurance scheme, an unemployment rate at this level would represent "over full-employment."

A second "danger spot" in the national projection is the persistence of a current account balance of payments deficit. Although projected to decline as a percent of GNP, public policies to stimulate exports (including perhaps a re-negotiation of the automobile agreement with the U.S., export incentives, the encouragement of tourism in Canada and some relaxation of energy

export restrictions) along with policies to hinder imports (including perhaps policies to discourage travel abroad) have a high chance of implementation. It should be noted that substantial foreign capital inflows associated with energy investments in the early 1980s could result in upward pressure on the Canadian dollar (just as repayments of interest and principal currently have led to a downward pressure) and this could hinder the successful operation of the above policies should they be tried.

Perhaps the most important public policy is, however, "jawboning" - the policy that encourages all Canadians to adjust their sights to a somewhat lower expected growth rate, not only in national and provincial output, but also in per capita incomes.

4.2 Policy Adjustment at the Provincial Level

The Provincial Treasurer has set an objective of balancing the budget of the Government of Ontario by 1981. The projections outlined above show that this will be an extremely difficult task. The budget deficit for the current (1977-78) fiscal year is estimated to be $1.294 billion. Over the medium term, average annual revenue growth is projected at a little under 11 percent (approximately 5 percent in real terms) while expenditure growth is projected at a little above 12 percent (or approximately 6 percent real). These are not the ingredients for a balanced budget! Either revenue growth will have to be increased - by, for example, raising tax rates, redefining tax bases or introducing new taxes - or, what appears even more likely, expenditure growth will have to be decreased below that embodied in these projections. Just in what programs such as decrease would be located is anyone's guess, but health, education and social services appear to be the most likely candidates (perhaps in that order).

There is a second factor that makes the Treasurer's objective of some priority. Since the late 1960s the Government of Ontario has been financing a substantial part of its net cash requirements (that is, deficits) from non-public sources (that is, without borrowing on the capital markets). The dominant sources of funds have been the Canada Pension Plan and the Ontario Teachers' Superannuation and Municipal Employees' Retirement Funds. Through a study of the operations of these plans, the annual net amount of funds (that is, inflows minus outflows) available to the province can be ascertained. Such analysis suggests that, without any increases in contribution rates, the net flow will decline steadily over the next decade with a negative flow being reached in the mid-1980s. Consequently there will be considerable pressure on the provincial government either to adopt new policies with respect to the operation of these funds (including perhaps contribution rate increases), or to reduce the size of the projected deficit. The government is currently showing concern with both of these alternatives.

4.3 Policy Adjustment at the Local Level

The economic realities facing local governments and agencies depend crucially on the policies adopted at the provincial level. In the projection outlined in this paper total budgetary revenues are projected to grow in excess of 10 percent per year (for a 'real' gain of approximately 4 percent) and, under the "Edmonton Commitment," transfers to the local authorities would grow at this rate. However, as is apparent by his recent actions, the Provincial Treasurer can adopt different policies towards this Commitment and this can drastically affect the resources and constraints at the local level. Under present proposals the Commitment will be balanced in fiscal 1978-79 and, presumably,

thereafter local transfers would grow at the above mentioned rate. However, although the Commitment ties these transfers to revenue growth, the provincial government views them as an expenditure item and, in light of the possible policy adjustments at the provincial level outlined above (Section 4.2) it would not be surprising if further "amendments" to the "Edmonton Commitment" were forthcoming in the decade of the 1980s.

As previously noted, over half of these transfers are for educational purposes - specifically, general legislative grants to school boards and contributions to the Teachers' Superannuation Fund. Being part of the Commitment which determines the growth in total transfers, increased funding to municipalities and local agencies can only take place at the expense of the educational transfers and, with school enrolments projected to decline, this is an apparently attractive option. The outlook for school boards in both the short-term and the medium-term is not encouraging and becomes even more discouraging if the provincial government continues with its "spending restraint" program, thus constraining transfers to the local level, and if the municipalities and local agencies seek increased funding in the light of projected declines in school enrolments. Of all the policy adjustments examined in this brief overview, this is probably the most severe.

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